

UNIVERSITY OF TASMANIA SUBMISSION – 15 FEBUARY 2019

Submitted to - Department of Education and Training at CGS@education.gov.au

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Preamble

The University of Tasmania welcomes the opportunity to respond to the consultation paper on the re-allocation of Commonwealth supported places for enabling, sub-bachelor and postgraduate courses and submits the comments below in response to that paper.

The University has also taken this opportunity to provide an overarching statement of our position in relation to the impact of capping of places for enabling programs and sub-bachelor and postgraduate courses on regional Australia generally, and on Tasmania in particular.

Preserving places for enabling and sub-bachelor courses to secure a prosperous future for Tasmanians

Providing appropriate levels of access to educational opportunities is critical to the future economic prosperity of Tasmania and for this reason, the University of Tasmania cannot support any decrease in higher education places made available to the Tasmanian community.

Higher education is a major driver of new industry generation, productivity gains, jobs growth and greater social inclusion and therefore any limit on access to relevant educational offerings will limit the State's economic future. As the table below shows, the State faces a range of challenges, not the least of which is low educational attainment rates right across the education spectrum, but particularly in secondary and higher education.

	Metric	Tasmania	Australia	Difference
jc	Unemployment rate (Aug 2018)	6.0%	5.3%	0.7%
Econon	Total full time weekly earnings (May 2018)	\$1,461	\$1,651	-\$190
	Australian digital inclusion index (March 2018)	58.1	60.2	-2.1
ills + Training	Proportion of year 9 students at or above the national minimum standard: Writing (2017)	75.9%	81.6%	-5.7%
	Proportion of year 9 students at or above the national minimum standard: Numeracy (2017)	95.4%	95.8%	-0.4%
ð	Year 12 (or equivalent) attainment, proportion of 15-64	47.3%	63.8%	-16.5%

Sources: ABS Cat 6302.0, ABS Cat 6202.0, ABS Cat 3302.0, ABS Cat. 3101.0, ABS SEIFA, ABS Cat 3303.0, ABS Cat 6227.0, ABS Cat 8111.0, Roy Morgan.

Providing a range of non-traditional entry points to higher education through enabling programs and sub-bachelor courses is critical if we are to close these gaps. The report *Expanding Associate Degree Places in Tasmania* (Nous Group, 2016), previously provided to the Department and attached to this submission, outlines the significant impact that the provision of a diverse range of educational opportunities continues to have on the regions.

The University of Tasmania is the only university in a state which is tackling historically poor levels of education participation and attainment. Addressing this issue was the fundamental imperative behind the Northern Tasmanian Transformation project which had bipartisan endorsement in the 2016 election; has been backed by a \$150m capital commitment from the present government; and is a central tenet of the business case to support that project as evaluated by Infrastructure Australia.

Specifically, the strategy has been to introduce the University College which is now offering associate degree programs to encourage greater engagement in post-secondary education, particularly in the state's regional areas. The University has sought to increase its allocation of sub-bachelor places to ensure we can deliver on this strategy, in partnership with the Australian and Tasmanian Governments and working closely with the Tasmanian community.

The diplomas and associate degrees offered by the University of Tasmania aim to lift Tasmanian participation in higher education by offering programs that are more accessible for those who would not traditionally consider university study, such as those with low or no ATAR, no higher education family tradition, or older workers looking to upskill. The blended, regionally focussed delivery model presents a more affordable and flexible option for many Tasmanians. The courses are specifically designed to be relevant to the needs of regional industry and the Tasmanian economy, with the objective of improving Tasmania's lagging productivity.

The importance of preserving these pathways is borne out by analysis of historical trends in enrolment patterns for enabling/sub-bachelor and bachelor courses, with enabling/sub-bachelor enrolment growth significant at both a national level and in fact outstripping bachelor enrolment growth in the Tasmanian case.





Source: HEIMS Data



Figure 2 – University of Tasmania enrolments (2011-2017)

Source: HEIMS Data

Future projections of educational demand in the State forecast that growth in the demand for subbachelor (and postgraduate) courses will continue to increase, particularly as we experience the transformation of Tasmanian industries and the impact of the reform of the Tasmanian secondary school system.

Employment is growing and will continue to grow most rapidly in occupations that require higherlevel qualifications. Figure 3 shows the projected employment by qualification needs (2017-2048) for Tasmania.





Source: Deloitte Access Economics

An understanding of the challenges faced by the Tasmanian community and the impact that current change initiatives are having is critical to fully appreciating the responses provided in this submission.

Any restriction, cap or loss of places for enabling programs and/or sub-bachelor courses will restrict Tasmania's capacity to improve economic performance and will result in less jobs and training opportunities for Tasmanians in the future. We are actually of the view that there should be an *increase* in places for sub-bachelor courses and enabling programs allocated to regional Australia.

Preserving places for postgraduate courses to upskill Tasmanian workers and secure the future of Tasmanian research

The University of Tasmania is the major generator of research and advanced education in the State. We generate the majority research on the island and provide a large part of postgraduate training for industry, State government and other public services.

These offerings are targeted towards the future skills needs of the State and are backed by sound research and needs analysis. Figure 4 shows that future employment is shifting towards higher education and specialised skill requirements.





Source: Deloitte Access Economics

Places in postgraduate courses are essential to future industry growth and provide the future pipeline for researchers in the State. Research shows that postgraduate qualifications lead to higher productivity and average incomes, two major challenges facing the Tasmanian community.

Any restriction, cap or redistribution of places will limit Tasmania's potential to deliver more efficient industry outcomes and will limit the research and innovation the State needs. Reallocating the University of Tasmania's postgraduate places means re-allocating *Tasmania*'s postgraduate places.

Specific Responses to the Discussion Paper

Proposed general principles for re-allocation

We agree with the Government's position that "places should be allocated to providers that are delivering the **best outcomes for students, taxpayers and employers**". Employability is a major driver of courses for the University of Tasmania, and this is reflected in our stated mission to provide ongoing leadership within the Tasmania community and to contribute to the cultural, economic and social development of the island.

We also share the Government's commitment to "a world-class higher education system that provides appropriate support for students and **removes barriers for under-represented groups that is also sustainable for future generations**". This is particularly salient in the Tasmanian context. The sustainability point is very important, as our efforts around attainment and aspiration-raising are based around the need for generational cultural change. Part of our distinctive mission is to provide accessible offerings. We do that for a state with the most regionally distributed population and with far greater levels of disadvantage than other states. A strong university presence in regions is important both for their economic and social futures, and for the ease of access to education for regional communities.

We agree that "**sub-bachelor courses need to evolve** to meet the changing workforce requirements of the future. For example, as workforces become transformed by increasing automation and digitalisation there will be an increasing employer demand for students with Industry 4.0 competencies at both the sub-bachelor and bachelor level." Meeting workforce requirements is one of the main drivers of the sub-bachelor programs delivered through the University College.

We agree that there should be **periodic review of the criteria** on which places are allocated and the methodology by which they are distributed. A three-year review cycle appears appropriate. This is particularly important given shifts in factors that affect need and demand, such as changes in identified skills shortage areas (as the authors have pointed out.)

We agree that **geographical distribution** should play a role in determining allocations, but we are of the view that this should never be the sole determinant. As the authors state, "considerations such as population growth would need to be balanced against other priorities like emerging workforce need or relative socio-economic disadvantage across regions." This kind of balancing of considerations is not a simple task, but it is a worthwhile one if the aim is to achieve a degree of genuine need-based distribution. The Compacts between the Government and providers are an expression of this aim and the current variations in place distributions per capita are due to the fact that various parts of the country have differing educational needs, which are influenced by a complex set of factors. For example, data presented in the discussion paper shows that the Tasmanian distribution of places for sub-bachelor programs per head of population is higher than the other states – but it should be. The Northern Territory also has a high distribution per head of population for similar reasons.

We support a re-allocation process that is **aligned with funding periods/agreements** and agree that this will give providers greater planning certainty and reduce regulatory burden. The process for managing the re-allocation of unused places from year-to-year should be formulated with input from providers as suggested (and this needs to occur reasonably quickly).

In terms of the proposal to **apply a 5% reduction in commencing places** (sub-bachelor and postgraduate) across all clusters, we note that the derived estimate of the number of places that the University of Tasmania would contribute in this scenario is 24 (enabling places), 87.2 (sub-bachelor places) and 28.3 (postgraduate places). We assume that the intention is to impose this reduction and then move to a criteria-based methodology for the redistribution of the pool of places that results. We maintain that any such redistribution must balance the needs of students and providers and we have articulated our views about the potential methodology to achieve this balance, through the use of weighted criteria below.

Potential criteria for re-allocating places for enabling programs

We are highly supportive of the use of criteria based around consideration of the **characteristics** of an institution's commencing student cohort and/or the profile of the institution's catchment area. These two criteria have formed the basis of our recent (successful) requests for increases in our enabling place allocation. The evidence previously presented in support of those requests remains applicable to the Tasmania context.

We are also highly supportive of **use of innovative teaching models** as a criterion. The authors state "universities should be encouraged to develop innovative approaches to delivering enabling courses, particularly as such courses should be designed to support students that are underprepared for tertiary education and which prepare students to undertake study at a range of tertiary institutions." This completely mirrors, what should be the aim of any enabling program. Those programs that are innovative, responsive and attractive to the cohort will be those that are genuinely 'enabling'.

The authors state "it will also be important to ensure that **criteria do not effectively lock out institutions** with no, or very small current allocations and there may be value in considering whether all institutions should be entitled to a minimum number of places." It may be that Mission-Based Compacts could provide a mechanism for institutions to signal future intentions and changes to strategic direction, such as, for example, an intention to begin to offer enabling programs. The notion of granting a minimum number of places to all providers could also serve to encourage innovation amongst providers, however under-utilisation would need to be closely monitored and this should not come at the expense of other institutions.

In relation to the potential criteria based around **historical over and under enrolment**, comparing allocations with actual use, we agree that significant over-enrolments at an institution may indicate that there is strong demand and students would benefit from continued or expanded Government support. We are of the view that utilisation should be *one of a number of criteria* used for re-allocation and that there must be some acknowledgement of the fact that the benefits of pathway and preparation programs sometimes take time to be realised.

The authors state that "places will be allocated according to **achievement of high standards of academic preparation and strong student outcomes**". While we are, of course, in agreement on the point about the achievement of high standards, this would benefit from further explication. Similarly, the phrase 'strong student outcomes' should be further clarified. Elsewhere in the discussion paper the authors state "the emphasis on allocation criteria should be on ensuring that enabling programs are of high academic quality and students have a high *likelihood of progressing to further study at tertiary level*". We note that this does not entail *actual* progression of enabling program students directly to further study, but only the likelihood that they will so. The likelihood that someone will progress is presumably, a proxy for quality and is therefore supported. However, if what is meant by 'strong student outcomes' is *actual* and immediate progression from enabling programs rather than likelihood, we do not support the use of this criteria as described the discussion paper. The requirement to progress to further tertiary studies in the following year does

not reflect the actual study patterns of many of these students. They often return to study, but not necessarily in the following year. This is particularly the case for new and underprepared learners, to whom these enabling programs are targeted. We are also of the view that any understanding of 'strong student outcomes' should be particularised and mission-based (e.g. Compacts).

We are completely committed to the stated aim of enabling programs as articulated by the 2011 Base Funding Review – "Enabling programs are a **preparation tool for students with socio**economic or educational disadvantage". The data presented in the discussion paper shows that enabling programs are fulfilling this aim (chart 8) as are the sub-bachelor programs. Note the stated aim here is *not* to progress to bachelor degrees. It follows that progression should not form the basis of place re-allocation.

In summary, our view is that these criteria should be **weighted in the following manner** (from highest to lowest) -1) profile of commencing students/catchment; 2) current utilisation; 3) likelihood of progression/quality; and 4) innovative teaching models. We are of the view that actual progression should *not* be used to re-allocate places for enabling programs.

Potential criteria for re-allocating places for sub-bachelor programs

We are highly supportive of an allocation criterion based on **demonstrated need**, or current post-secondary provision in the region relative to the national average. The University of Tasmania's sub-bachelor place allocation is relatively high when compared to other regions, precisely *because* it is the sole registered self-accrediting higher education provider in Tasmania.

Whilst broadly supportive of a criterion based on **current utilisation** of places for sub-bachelor programs, we are of the view that utilisation should be *one of a number of criteria* used for reallocation and that there should be some acknowledgement of the fact that the pipeline-effect of articulation from sub-bachelor programs is often not immediately realised.

The authors state "places could be prioritised to those institutions that can demonstrate a strong track record in supporting students through to **completion or into further study at tertiary level**." Although we are of the view that completion and progression should be taken into consideration, they should not be the only considerations. Associate degrees, for example are sometimes are an outcome in themselves – i.e. employment outcomes arising from an associate degree can be just as important as articulation. The U.S example tells us this – 50% of students articulate, whereas the other half use the qualification to better their employment outcomes.

In relation to the potential criteria based around **retention**, it is important that the authors have made the point that "this would need to be designed to take into account variation in institutional mission and the characteristics of their student cohort." Because of the multifarious nature of these distinctive missions and cohort characteristics, retention should be given a low weighting.

The proposed criterion around **addressing industry needs** sounds acceptable on the surface, however it too warrants additional scrutiny. Some of our associate degrees simply do not have an 'industry' with which to align. According to the University's Strategic Direction "As we think about the impact of teaching and learning, we must never lose sight of the intrinsic value and excitement of learning and inquiry itself. For all we think about the many and broad purposes of education, it should never be reduced to a utilitarian or instrumental project." It is also true that other sub-bachelor programs, such as the associate degrees delivered through the University College, are highly attuned and directed towards industry need. It is unlikely therefore, that 'addressing industry need' will be appropriate for all sub-bachelor courses. We also have reservations about how performance against this criterion could be rigorously demonstrated and measured across the sector. For these reasons, this potential criterion should also carry a low weighting.

In relation to the potential criteria based around **demonstrated demand**, the authors state "this could be assessed in relation to local population growth and/or youth population." Notwithstanding the comments made above in relation to the role geographical distribution should play in allocation, we do not feel that helpful demographic traits have been identified here. It is not the case that only certain sections of the population (e.g. youth) or certain kinds of population (e.g. high growth ones) are more attracted to enrol in sub-bachelor programs than others. In fact, 65.3% of our sub-bachelor students are female and 32.6% of our sub-bachelor students are between the ages of 30 and 50.

In summary, our view is that these criteria should be **weighted in the following manner** (from highest to lowest) -1) demonstrated need; 2) current utilisation; 3) completions and transition to further study; 4) retention; and 5) industry need. We are of the view that demonstrated demand as characterised should *not* be used to re-allocate places for sub-bachelor programs.

The authors state "an issue to consider is **how would universities without existing allocations demonstrate performance** in these criteria." It is certainly the case that providers with no existing sub-bachelor allocation cannot be measured on their performance and would therefore have to be assessed according to need. Perhaps such providers could present their performance in relation to bachelor courses as a proxy indicator of likely future performance in sub-bachelor programs?

Potential criteria for re-allocating places for postgraduate programs

Although we are highly supportive of allocation criteria based on **professional requirements and community benefit**, we also agree that defining parameters around 'community benefit' is not straightforward. The University of Tasmania offers some postgraduate courses under agreements with, for example Tas Police, the Department of Education and Department of Health. These programs are aimed at upskilling in-service professionals. Importantly, these Tasmanian service sectors do not have another provider in-state to provide these courses. As stated in our Strategic Direction "as the sole university for Tasmania, we have a unique ability to work in partnership with government and community to deliver public services like health and education."

We are also supportive of the use of criteria based on the qualification constituting a **minimum** requirement for professional accreditation and/or the shortest possible pathway to a professional qualification. These criteria accord with common sense.

A criterion based around **student satisfaction** would be a useful addition, and we agree that this could act as a proxy for course quality. However, we note that completions could also be used in this regard.

Whilst broadly supportive of a criterion based on **current utilisation** of places for postgraduate programs, we are of the view that utilisation should be *one of a number of criteria* used for reallocation and that there should be some acknowledgement of the fact that considerable effort is required to develop new postgraduate courses. In effect, we could see a situation whereby providers are developing innovative new offering, only to find that there are no postgraduate places available. It would be preferable to allow a small amount of under-utilisation to leave room for new course and discipline development.

In relation to the potential criteria based around **meeting identified skills shortages**, we are in agreement with the authors, who point out that there are issues around the definition of 'shortage' and the regular analysis and adjustment of lists of shortage areas. In addition, we are of the view that not all postgraduate qualifications are actually aimed at addressing such shortages. Notwithstanding this point, if this criterion is to be employed, the use of the Department of Jobs and Small Business Skills Shortages List is a valid suggestion (provided that this list remains responsive and dynamic).

In relation to the use of a criterion around **graduate employment**, the authors acknowledge that "consideration will need to be given to the range of external factors which influence graduate employment". Because of the diversity and difficulty in measuring the impact of other influences, graduate employment should be given a low weighting. It is also certainly the case that many Graduate Diploma, Graduate Certificate and Masters students are already employed and continue to be throughout their study.

We are of the view that **equity representation** should not be used to re-allocate postgraduate places. Such a measure could more usefully be applied to the allocation of places for enabling programs and sub-bachelor courses.

In summary, our view is that these criteria should be **weighted in the following manner** (from highest to lowest) -1) professional requirements/community benefit; 2) required for professional accreditation; 3) shortest possible way to professional qualification; 4) student satisfaction 5) current utilisation; 6) meets identified skills shortage; and 7) graduate employment. We are of the view that equity representation should *not* be used to re-allocate places for postgraduate courses.

Attachment – Expanding Associate Degree Places in Tasmania (Nous Group, 2016)

Attachment

Expanding Associate Degree places in Tasmania

University of Tasmania

21st April 2016





Expanding Associate Degree places in Tasmania

Introduction to the project

The University of Tasmania is pursuing an ambitious transformation agenda (Transforming Lives. Transforming Cities). Key objectives of this agenda are to:

- Boost tertiary education participation and employment, particularly in the North and North-West
- Support world class research and industry innovation.

Central to this agenda is a proposal to increase significantly the number of Associate Degree* places in Tasmania to provide greater choice and access to higher education.

The cap on Associate Degree places, regulated by the Australian Government, restricts the University of Tasmania's capacity to realise the full potential of its transformation agenda. Nous Group (Nous) was engaged by the University of Tasmania to:

- Consider elements of this case and the argument and data that support it, to identify both its strengths and weaknesses.
- 2. Consider policy implementation options.
- 3. Develop a financial model to estimate the fiscal impact of expanding Associate Degree places in Tasmania and across Australia, aligning with the policy options.

Nous Group has undertaken these three tasks over the last two weeks (11-21 April 2016). Our findings are summarised in the pages that follow. They are subject to assumptions we have made explicit.

Note: The University of Tasmania's Associate Degree program may include a small number of other pre-degree programs such as the Indigenous program.

Tasmania is a valuable test case for an Associate Degree platform, which could have benefits nationally.

Executive summary



Rationale for expanding Associate Degrees

Associate Degrees could be an effective and cost-efficient pathway to further study or employment, with both outcomes reducing the risk of bad debt. The University's record suggests a good level of success for students going on to degree study. More work is needed on models for Associate Degree qualifications that produce direct labour market outcomes for those who do not pursue further study. There is poor data on this nationally, partly because numbers are so low.



Tasmania is an attractive pilot location

Significantly expanding Associate Degrees in Tasmania would provide valuable insights on using an expansion of Associate Degree places as a strategy to address educational disadvantage. Tasmania is a one university market, with significant unmet demand among poorly prepared students and where human capital limitations are an identified barrier to economic growth. A pilot would allow for consideration of results before embarking on a targeted or national scale, providing data to consider various implementation options.



Financial impact

Our financial modelling estimates that the cost of expanding Associate Degree places need not be as much as previously estimated, most importantly because there will be some degree of substitution for direct first year bachelor enrolments by low ATAR students, a substitution which could be enforced by policy levers.







1. Rationale for expanding Associate Degrees

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- 2. Tasmania is an attractive pilot location
- 3. Financial impact

Tasmania lags behind the rest of Australia across higher education attainment, employment and earnings.

Headline figures for higher education, unemployment and earnings Tasmania vs. national average



Source: Australian Bureau of Statistics. Average weekly earning figures rounded to nearest dollar.

When it comes to boosting higher education attainment, not everyone is ready to enter a Bachelor Degree directly.

Admissions to Bachelor Degrees with an ATAR < 60 are growing, but are only a small percentage of total admissions...

Bachelor Degree admissions for students with ATAR 30-59



...however the attrition rate is high, and while the ATAR 50-60 is improving, the ATAR <50 drop out rate is nearly 25 per cent.

System-level attrition rates for Bachelor Degree commencing students by ATAR, 2007-11 (%)



Source: Review of the Demand Driven Funding System Report, Kemp and Norton (2014).

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Students with low or no ATARs, require greater choice to access to higher education opportunities.

Low ATAR students benefit from study pathways

Pathway students Weighted average university mark 67.0 61.1

Relationship between ATAR and weighted average mark for commencing year

Data in chart is for a course which does not accept direct entry for students with ATARs below 70, but does take them if they come via a pathway program. The pathway students have average marks in their commencing year which are comparable to direct enrolling students with an ATAR of 75 to 85.

Source: Evidence provided by an Australian University to the Review of the Demand Driven Funding System Report with permission for inclusion in that report, Kemp and Norton.

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Currently, Bachelor Degrees dominate higher education, with Associate Degrees comprising only ~1% of enrolments.

Constrained Associate Degree picture

Total national enrolments by qualification type (%)



Tasmanian enrolments by qualification type (%)



Source: Universities Australia HEIMS dataset 2014

Increasing numbers of low ATAR Bachelor Degree enrolments indicates growing need to consider Associate Degrees.

The portion of <60 ATAR students enrolled in a Bachelor Degree increasing by 6% by 2025.

- With no increase in participation rates, population growth alone will drive increasing demand for tertiary education.
- Bachelor Degree enrolments would have to grow by up to 93,700 enrolments in 2025 to keep participation rates constant¹.
- A rising proportion of these additional enrolments would come from increasingly marginal candidates, in particular students commencing with no ATAR or an ATAR of less than 60.0 — which could rise from 25% of new bachelor enrolments in 2016 to over 31% by 2025.²



Project growth in enrolments (AQF 5,6,7 & 8)

Notes: 1. Assumes no change in the level of VET Diploma/Advanced Diploma enrolments and in Associate Degrees

2. Growth in sub-60 ATAR student enrolments based on assumption that there is an increase in ratio of applications to offers (currently 3 to 1) Source: Nous modelling; Universities Australia HEIMS dataset

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Associate Degrees can support students looking to articulate to a Bachelor Degree.

Potential advantages of Associate Degrees as a pathway over VET AQF5/6 and enabling programs



Enhanced educational scaffolding

Prepares the student for a Bachelor Degree by introducing them to a curriculum based model of learning, as opposed to a competency based model.



Fit for purpose

Can be specifically designed for articulation into a Bachelor Degree, i.e. directly applied to receive credit, which is supported by university quality control and reputation.



Cost and time efficient

Better option for students looking to articulate to a Bachelor Degree as it is given more credit – reducing whole of cost of degree and providing a quicker path to employment post-Bachelor

University of Tasmania analysis of 2011 Associate Degree and Bachelor Degree Cohort; NCVER (2012), 'Associate degree or advanced diploma? A case study.' nousgroup.com

University of Tasmania has experience in providing Associate Degrees as a pathway.

Analysis shows Bachelor attainment rates for Associate Degree pathway students is comparable to all those who enrolled directly in a Bachelor.









1,110 students commenced enrolment in an Associate Degree in 2008 49% of those students went on to study a Bachelors Degree 59% of those Associate Degree students that transitioned to a Bachelor Degree graduated

Compared to 62%* of the 2005 and 2006 Bachelor Degree cohorts who successful completed the degree

Source: University of Tasmania analysis of completion rates 2008 Associate Degree and 2005/6 Bachelor Degree cohorts *Average completion rate for 2005 and 2006 cohorts

USA data shows Associate Degrees may deliver higher earnings than VET certifications, but local data is missing.

Difference in mean annual earnings after one year for graduates of selected Associate Degree and certificate programs in Tennessee Community Colleges



University of Tasmania, in common with some other universities and building on good educational pathway outcomes from their Associate Degree program, is committed to developing the worth of the qualifications in their own right, and in specific areas of labour market demand. This is a potentially key development in the tertiary education market.

Source: Schneider, M., & Vivari, B. (2012). The earning power of graduates from Tennessee's colleges and universities: How are graduates from different degree programs doing in the labor market? Washington, DC: College Measures, pp. 15.

Increasing the number of Associate Degrees will enable Tasmania to better meet future labour needs.

Growth in Tasmania will be in service and knowledge industries, requiring higher numbers of higher education qualifications.

Projected job growth in Tasmania by industry and estimated skill level from 2015 to 2019

					Total (2015)	Change (2019)
Mining	-17.37%	Certificate Degree			3,455	-600
Manufacturing	-4.39%				18,238	-800
Electricity, Gas, Water and Waste Services		0.07%			7,817	0
Agriculture, Forestry and Fishing		0.78%			12,756	+100
Information Media and Telecommunications		2.23%			4,477	+100
Public Administration and Safety		2.38%			16,822	+400
Wholesale Trade		4.02%			7,458	+300
Retail Trade		6.73%			28,212	+1,900
Total (All Industries)		7.37%			241,553	+17,800
Arts and Recreation Services		7.68%			3,906	+300
Accommodation and Food Services		8.49%			18,835	+1,600
Construction		8.53%			18,768	+1,600
Rental, Hiring and Real Estate Services			11.45%		3,493	+400
Transport, Postal and Warehousing			11.54%		11,266	+1,300
Financial and Insurance Services	I		11.89%		5,048	+600
Professional, Scientific and Technical Services			12.28%		11,402	+1,400
Education and Training			12.67%		21,319	+2,700
Administrative and Support Services			13.39%		7,469	+1,000
Health Care and Social Assistance				16.86%	30,246	+5,100

Growth industries, such as health, social services, education and business services, require problem solving ability, social skills and technical competency. Further developing the Associate Degree qualifications on offer to deliver job ready qualifications in these areas is a clear priority.

Notes:

1. Jobs growth is from the Department of Employment 2015 Regional Employment Projections

2. Split by qualification is based on estimates from CEDA Australia's Future Workforce Report, June 2015

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Longer-term financial benefits will accrue through the HELP scheme.

As the model develops, Associate Degrees will improve rates of repayment, reducing government subsidy costs.

- Associate Degrees are likely to produce better long term loan repayment rates. This is due to assumed higher earning potential (value placed on level qualifications by employers), as a greater proportion of educationally disadvantaged students graduate with Bachelors Degrees and as Associate Degree qualifications themselves directly adapt to local labour market demands.
- The figure on the right illustrates the potential for Associate Degrees to support repayment rates sitting somewhere between Diplomas and Bachelor Degrees, measured in terms of subsidy ratio.

Student loan subsidy ratios* by course level under current HELP rules

Figures represent cost to government in cents for every \$1 of student loan debt



Source: Chapman and Higgins 2015, Feasibility and design of a tertiary education entitlement in Australia: Modelling and costing a universal income contingent loan. *Includes interest rate subsidy and debt-write off for every dollar of student loan debt by course level.

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1. Rationale for expanding Associate Degrees

2. Tasmania is an attractive pilot location

Significantly expanding Associate Degrees in Tasmania would provide valuable insights on using an expansion of Associate Degree places as a strategy to address educational disadvantage. Tasmania is a one university market, with significant unmet demand among poorly prepared students and where human capital limitations are an identified barrier to economic growth. A pilot would allow for consideration of results before embarking on a targeted or national scale, providing data to consider various implementation options.

3. Financial impact

Expanding Associate Degrees in Tasmania would provide valuable insights for a broader expansion program.

Tasmania is an attractive pilot location



Tasmania consistently performs well below the national average for tertiary education attainment and participation, employment and average earnings. The University of Tasmania is an experienced provider of Associate Degrees, which will assist in the ease of getting a pilot up and running. The propensity to enroll in AQF5-8 level courses in North West Tasmania is 3.6%. This is representative of, and relevant to, other disadvantaged regions.

Source: UA HEIMS enrolment data for AQF5, 6, 7 and 8 and ABS postcode level population data for ages 15-64.

1. These are four examples from the twelve disadvantaged regions used in the model. See appendix for full list. nousgroup.com

Associate Degrees will help address the higher education gap and strengthen the University's strategy for Northern Tasmania.

Education-driven revitalisation of Northern Tasmania project

The *Education-Driven Economic Revitalisation of Northern Tasmania* project addresses the education deficit in Northern Tasmania through three key deliverables:



1. A greater offering of relevant, industry-aligned courses

- delivering a new program of Associate Degrees to align education provision with employment and further education pathways, community, industry and professional development priorities

2. A university structure to drive the delivery of Associate Degree courses



One University system delivering high quality research, teaching and employment outcomes

'University System' Council

Academic Quality





3. Financially sustainable and fit-for-purpose regional campuses

- providing modern, purposebuilt, world-class teaching and research facilities, in the Launceston and Burnie CBDs, in close proximity to existing new University infrastructure and accommodation facilities which are accessible, visible and integrated with the community and industry

Source: University of Tasmania (2016). Transforming Lives. Transforming Cities.

- 1. Rationale for expanding Associate Degrees
- 2. Tasmania is an attractive pilot location

3. Financial impact

Our financial modelling estimates that the cost of expanding Associate Degree places need not be as much as previously estimated, most importantly because there will be some degree of substitution for direct first year bachelor enrolments by low ATAR students, a substitution which could be enforced by policy levers.

Costing an increase in Associate Degree provision must take into account enrolment drivers, offsets and cost differentials.

Key model assumptions

Drivers of enrolments in tertiary education



Forecasts of Australia's population growth underpin future demand growth. Our results are based on the ABS medium series.



Participation in tertiary education has been rising but the extent to which this will continue is unclear. Our model considers both the stalling of participation rates as well as a gradual increase scenario. Enrolment offsets for any increase in Associate Degrees



Additional Associate Degree enrolments could come from avoided Bachelor Degree enrolments.



Alternatively additional enrolments could be additive to the base case.



Other possible offsets from VET sector enrolments were considered but not considered to be material.

Cost differentials between Associate and Bachelor Degrees



Only the subsidy cost of Commonwealth Supported Places (CSPs) have been modelled.



Associate Degrees attract the same rate of subsidy as Bachelor Degrees. However the average weighted cost is assumed to be marginally lower because of differences in the mix of courses across funding clusters.

Note: In undertaking this modelling, Nous has not been privy to the costing methodology used in the 2014-15 Budget.

The potential financial impact to the Australian Government spans a wide range.

Estimated net financial impact in 2018



The extent to which an increase in Associate Degree enrolments avoids or is additional to Bachelor Degree enrolments is the key cost variable. \$44m savings

Government intervention to restrict the number of low ATAR Bachelor enrolments would likely have a strong impact on the uptake of Associate Degree enrolments i.e. promotion of a 'substitution effect'.



Measures to increase the likelihood of avoided Bachelor enrolments would increase the prospect for net savings.

Spectrum for government intervention to influence enrolment patterns



In order to analyse the effects of increasing Associate Degrees, we have developed a Base Case model.

The *Base Case* model spans steady demand rising with population and rising demand driven by participation growth.

National projections for enrolments under the Base Case (2017-2020)



National enrolment and CSP cost projections for higher education and VET – 2018 and 2020

	Partici- pation	Projected E (00	Enrolments 00)	Projected CSP Costs (m)		
	growth	2018	2020	2018	2020	
Bachelor	No	725	742	\$7,344	\$7,513	
Degrees	Yes	787	847	\$7,973	\$8,578	
VET Dip.	No	258	258	\$1,394	\$1,394	
and Ad. Dip	Yes	265	264	\$1,432	\$1,428	
Associate	No	8.6	8.6	\$78.5	\$78.5	
Degrees	Yes	9.0	9.3	\$82.2	\$84.9	

Source: Nous modelling; Universities Australia HEIMS dataset; NCVER AVETMISS dataset

1. Participation growth projections based on recent trends for VET and higher education moving from 4% to 2% from 2015 to 2026 nousgroup.com

Under the median scenario, an additional 30,900 Associate Degree places could be offset by Bachelor Degrees.

Estimated enrolment projections over 2017-2020 by qualification level

A small increase in projected ...And a shift towards more ...could be offset by a reduction VET Dip./Ad. Dip. enrolments... Associate Degree enrolments... in Bachelor Degree enrolments Base case with growth in Base case without growth in Projected level with increased participation rates participation rates Associate Degree places

Change relative to the Base Case in 2018

Offsets from	VET Dip. a	nd Ad. Dip	Associate	e Degrees	Bachelor Degrees		
Bachelor Degrees?	Enrolments	CSP costs (m)	Enrolments	CSP costs (m)		Enrolments	CSP Costs (m)
No	+9,900	+\$53.5	+30,500	+\$278.4		+28,800	+\$291.8
Yes	+2,800	+\$15.1	+30,900	+\$282.1		-33,300	-\$337.4

Source: Nous modelling; Universities Australia HEIMS dataset; NCVER AVETMISS dataset

nousgroup.com

We have identified three options for the expansion of Associate Degrees.

Associate Degree expansion options

	Tasmanian Pilot	Targeted Program	National Rollout
key features	 Target an increase of ~3,000 Associate Degree enrolments by 2020 Pilot led by the University of Tasmania with a strong focus on Northern Tasmania 	 Target an increase of ~30,000 Associate Degree enrolments by 2024 Focus on a further 12 disadvantaged regions (see list in Appendix on slide #31) 	 Target an increase of ~46,500 Associate Degree enrolments by 2026 Increase the cap on Associate Degrees or include them in the demand driven system
High-level considerations	 Address an acute need for better education and employment outcomes in Tasmania. Take up the University of Tasmania's eagerness to participate in a pilot study, although this would need to be weighed against interest from other providers. Monitor and learn from the impact of expanding Associate Degree enrolments on other tertiary options (e.g. rate of substitution for Bachelor Degree, Diploma and Advanced Diploma enrolments) prior to considering expansion at a regional or national scale. This could involve government intervention to promote take- up of Associate Degrees if desired. 	 Focus on increasing the level of Associate Degrees in target regions where: There is low educational participation and a sluggish economy High levels of low-SES and indigenous population High levels of sub 60 ATAR enrolments. Weigh the complexity involved in administering a targeted program versus a more contained pilot in one state or a full national roll-out. 	 Provide greater choice and access to higher education across the country. May require significant new investment or generate modest savings depending on the detail of the implementation approach. Weigh the risks of potential education provider backlash (in VET and HE) against the simplicity of a system level change. Weigh the merits of including a restriction to ensure a 'substitution effect' (shift in enrolment type occurs rather fully additive).

Phased implementation enables lessons to be learned prior to possible expansion at a national scale.

A possible phased approach

	1. Tasm	anian Pilo	ot	2. Targeted Program					3. National Rollout			
Year	Enrolments	CSP cost range (m)	Median cost (m)	Year	Enrolments	CSP cost range (m)	Median cost (m)	Year	Enrolments	CSP Cost range (m)	Median cost (m)	
2018	+1,000	-\$1.0 to +\$9.1	\$4.1	2022	+10,000	-\$10.0 to +\$91.3	\$40.6	2026	46,500	-\$67.0 to +\$424.4	\$178.7	
2020	+3,000	-\$3.0 to +\$27.3	\$12.2	2024	+30,000	-\$30.1 to +\$274.0	\$121.9					

Source: Nous modelling; Universities Australia HEIMS dataset; NCVER AVETMISS dataset

Phased implementation will target additional places in disadvantaged areas.

National enrolment profile across implementation phases



Source: Nous modelling; Universities Australia HEIMS dataset; NCVER AVETMISS dataset nousgroup.com

Appendices – Additional data slides

Level of education attainment has an impact on employment...

National participation rate by education attainment



attainment

National unemployment rate by education

Source: Australian Bureau of Statistics, Education and Work, Australia, May 2015, Data set 6227.0

It also has an impact on weekly earnings...

Australian median weekly earnings by educational attainment (2009) *Australian dollars* Tasmanian average weekly earnings by education attainment (2005) *Australian dollars*



Note: Tasmania data is 2005 and has not be adjusted for wage growth. It should not be directly compared to 2009 national data. Source: Australian Bureau of Statistics, Education and Work, Australia, 2005 and 2009, Data set 6278.0

nousgroup.com

USA data also shows the improved employment and earning potential that comes with higher level qualifications.

USA employment rate and weekly earnings by level of qualification



Source: U.S. Bureau of Labor Statistics, Current Population Survey (2015): http://www.bls.gov/emp/ep_chart_001.htm

Appendices – Cost model supporting slides

The cost models contain a number of key inputs and assumptions.

	Inputs and Assumptions											
No	Variable	Impact	Argument	Assumption to be modelled	Data used	Median Case Settings						
1	Population	Positive	Population growth will drive overall enrolment levels in both VET and HE.	The effect of population growth on enrolment levels.	ABS Population Projections - Low, Medium and High.	Population growth scenario:	Medium					
2	Overall participation in tertiary	Increasing	The participation rate in Australia will continue to rise gradually over time. This is not a function of the uncapping	Three possible scenarios reflecting the short term growth trend since 2010 (high), the long-term growth trend since	ossible scenarios reflecting the Annual growth rates erm growth trend since 2010 based on analysis of the long-term growth trend since trend data since 2001		Low					
2	education		of Associate Degrees but rather an exogenous long-term trend.	2001 (medium), or a deceleration reflecting saturation (low).	using data from Ucube, VOCSTATS and the ABS.	VET participation growth scenario:	Low					
3	Share of Bachelor Degree enrolments relative to Associate Degree enrolments	Decreasing	Marginal/low ATAR students are expected to enroll in an Associate Degree instead.	A shift in market share away from Bachelor Degrees to Associate Degrees equivalent to the proportion of enrolments at the sub 60 ATAR level, which accounts for 5 per cent of total enrolments (medium).	HEIMS data on the distribution of HE enrolments at the Bachelor Degree level.	Shift in share from Bachelor Degrees and VET Diplomas and Advanced Diplomas to	Low					
4	Enrolments in VET Diplomas and Advanced Diplomas	Decreasing	Associate Degrees will be an attractive alternative to VET students particularly given declining subsidy rates and constrained availability of VET FEE-HELP	A shift in market share away from VET Diplomas and Advanced Diplomas towards Associate Degrees.	Enrolments at VET Diploma and Advanced Diploma levels.	Associate Degrees:						
5	Average price per enrolment	Decreasing	Associate degrees receive the same level of CSP subsidy as Bachelor degrees but would be more concentrated in Fields of Education that attract a lower CSP rate.	Associate Degrees have a weighted cost based on either the current enrolment profile (high - \$10,856), HE advanced diplomas (low - \$7,100), or a mid-point between the two (medium - \$9,128).	Enrolments by level and field of education, and current CSP funding rates.	Average subsidy per enrolment for Associate Degrees:	Medium					

Base Case Scenarios — Enrolments and Costs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
			Enrolme	nts— Withou	t participation	rate growth					
VET Dip./ Ad. Dip.	257,900	258,100	258,100	258,100	258,200	258,300	258,400	258,500	258,600	258,600	
Associate Degrees	8,500	8,600	8,600	8,600	8,800	8,800	8,800	9,100	9,100	9200	
Bachelor Degrees	716,500	724,800	733,000	741,500	752,300	763,500	776,100	789,100	802,800	816,100	
Enrolments — With participation rate growth											
VET Dip./ Ad. Dip.	265,000	265,200	265,100	264,400	263,700	262,500	261,100	259,100	257,100	254,500	
Associate Degrees	8,700	9,000	9,100	9,300	9,400	9,700	9,900	10,000	10,100	10,300	
Bachelor Degrees	757,500	786,900	816,600	846,600	879,000	912,100	946,600	981,600	1,017,100	1,052,100	
			Costs (n	n) — Without	participation	rate growth					
VET Dip./ Ad. Dip.	\$1,393	\$1,394	\$1,394	\$1,394	\$1,394	\$1,395	\$1,395	\$1,396	\$1,396	\$1,396	
Associate Degrees	\$78	\$79	\$79	\$79	\$80	\$80	\$80	\$83	\$83	\$84	
Bachelor Degrees	\$7,260	\$7,344	\$7,427	\$7,513	\$7,622	\$7,736	\$7,863	\$7,995	\$8,134	\$8,269	
			Costs	(m) — With p	articipation ra	te growth					
VET Dip./ Ad. Dip.	\$1,431	\$1,432	\$1,432	\$1,428	\$1,424	\$1,418	\$1,410	\$1,399	\$1,388	\$1,374	
Associate Degrees	\$79	\$82	\$83	\$85	\$86	\$89	\$90	\$91	\$92	\$94	
Bachelor Degrees	\$7,675	\$7,973	\$8,274	\$8,578	\$8,906	\$9,241	\$9,591	\$9,946	\$10,305	\$10,660	

Increased Associate Degrees Scenario — Enrolments and Costs

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Enrolments											
VET Dip./ Ad. Dip.	266,300	268,000	269,400	270,300	271,000	271,400	271,600	271,500	271,200	270,400	
Associate Degrees	23,800	39,500	55,600	72,500	90,000	108,300	127,300	146,700	166,600	187,200	
Bachelor Degrees	741,100	753,600	765,800	777,500	791,100	804,600	818,700	832,500	846,500	859,300	
				Co	sts (m)						
VET Dip./ Ad. Dip.	\$1,438	\$1,447	\$1,455	\$1,460	\$1,463	\$1,466	\$1,467	\$1,466	\$1,465	\$1,460	
Associate Degrees	\$217	\$361	\$508	\$662	\$822	\$989	\$1,162	\$1,339	\$1,521	\$1,709	
Bachelor Degrees	\$7,509	\$7,636	\$7,759	\$7,878	\$8,015	\$8,152	\$8,295	\$8,435	\$8,577	\$8,706	

Tasmania is representative of other disadvantaged regions.

Participation rates used in Scenario 3 – Targeted program.

Regions	Population (15-64 years)	VET AQF 5-6 Enrolments	HE AQF 5-8 Enrolments	VET Propensity to Enrol	HE Propensity to Enrol	Total AQF 5- 8 Propensity to Enrol	Gap to reach average propensity of 6%
Riverina	99,608	679	1911	0.7%	1.9%	2.6%	3,400
Logan - Beaudesert	211,721	2523	4333	1.2%	2.0%	3.2%	5,800
North West	90,911	971	2316	1.1%	2.5%	3.6%	2,200
Mackay	124,274	1389	3373	1.1%	2.7%	3.8%	2,700
Bunbury	114,745	977	3489	0.9%	3.0%	3.9%	2,400
Shepparton	78,897	1309	1834	1.7%	2.3%	4.0%	1,600
Barossa - Yorke - Mid North	66,126	911	1761	1.4%	2.7%	4.0%	1,300
South Australia - South East	111,466	1485	3277	1.3%	2.9%	4.3%	1,900
Wide Bay	170,643	1907	5711	1.1%	3.3%	4.5%	2,600
Far West and Orana	73,759	981	2338	1.3%	3.2%	4.5%	1,100
Fitzroy	155,122	1757	5232	1.1%	3.4%	4.5%	2,300
Hunter Valley exc Newcastle	167,846	2443	5347	1.5%	3.2%	4.6%	2,300
Mid North Coast	120,937	1568	4077	1.3%	3.4%	4.7%	1,600

Note: Regions have been identified on the basis of (1) low propensity to enroll at the AQF 5-8 level, (2) low socio-economic profile, and (3) not being remote areas.

Source: UA HEIMS dataset, NCVER AVETMISS dataset nousgroup.com